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United States Department of Agriculture
Agricultural Research Service
Plant Pest Control Division, Western Region

BEET LEAFHOPPER SURVEY - DESERT AREAS OF SOUTHERN UTAH AND NEVADA,
SOUTHEASTERN CALIFORNIA AND CENTRAL ARIZONA
JANUARY 26 - FEBRUARY 6, 1965

Surveys just completed by the Plant Pest Control Division personnel in the desert areas named indicate that, present conditions prevailing, spring movement of beet leafhoppers from southern desert breeding grounds to cultivated districts of southeastern California, central Arizona, southern Nevada and Utah, is expected to be light to moderate.

Movement to central and northern Utah is expected to be light. Movement to eastern Utah and western Colorado to be moderate with possibly some heavy leafhopper concentrations due to local topography.

The southern desert breeding grounds, comprising approximately 50,000 square miles of potential weed host area was considered to have an estimated 42% host plant cover at the time of the survey. Fall and winter rains promoted host development over considerable portions of winter breeding areas in Arizona and some areas in southern Utah. Plant growth was spotty in southeastern California and southern Nevada. General storms in the southwestern desert area at the end of the first week in February should help sustain weed hosts and may cause additional plants to germinate.

The average number of beet leafhoppers found in areas where host plants were present was 0.04 compared to 0.15 in 1964, 0.02 in 1963, 0.012 in 1962, 0.02 in 1961, 0.014 in 1960 and 0.05 in 1959. It is estimated from data collected during this survey that overwintering beet leafhoppers in the southern desert breeding grounds total 12 billion in 1965, compared with 112 billion in 1964 and 7.7 billion in 1963.

This report covers only the beet leafhopper situation as found in the area surveyed. It does not have reference to populations that may have overwintered in local breeding areas in northern and eastern Utah and in western Colorado and Nevada.

Prepared at
Oakland, California

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April 26, 1965

To: Cooperators

From: Jim R. Dutton, Regional Supervisor

Subject: Second 1965 spring beet leafhopper survey desert areas
of central Arizona, southeastern California, southern
Nevada and southern Utah

The following report covers two separate surveys--one made during the period March 1-11, the other during April 19-22. Report on the earlier survey was delayed pending later observations to better evaluate the population potential evidenced by continuing rains and prevailing host plant abundance.

Late rains in areas south of the 34th degree parallel, particularly in Arizona, have kept host plants green and plentiful. Beet leafhopper population buildups continue and migration to the north may extend into May. Movement into cultivated districts of southeastern California, southern Nevada, southern and eastern Utah, and western Colorado is expected to be moderate to heavy; movement to central Utah is expected to be light to moderate and movement to northern Utah to be light.

Summer host plants, such as Russian thistle and Halogeton, were germinating in some areas and may have a bearing on the movement of beet leafhoppers to croplands. Where such summer hosts are abundant, the movement to adjacent crops may be reduced in magnitude.

Jim R. Dutton

